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Revision Number 2

1. IDENTIFICATION

Product identification

Product identifier	Cronatron™ 22 Cast Iron Bare Brazing Rod
Other means of identification	CW3062
Recommended use	Brazing Alloy, Welding Alloy
Restrictions on use	For industrial use only, These items are only intended for normal welding purposes

Supplier

Corporate Headquarters:
Cronatron, A Lawson Brand
Lawson Products, Inc.
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1-866-529-7664

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(800) 323-5922

24 Hour Emergency Phone Number (888) 426-4851 (Prosar)

Website <https://www.lawsonproducts.com>

2. HAZARD(S) IDENTIFICATION

Hazard Classification

This product is normally not considered hazardous as shipped. Avoid contact with eyes. Avoid inhalation of dust from the product. When this product is used in a welding process the most important hazards are: heat, radiation, electric shock and welding fumes. While this material is not classified as hazardous under OSHA, GHS or WHMIS 2015 regulations, this SDS contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

Symbol Not applicable

Signal word Not applicable

Hazard statements Not available

Precautionary statements

Prevention Not available

Response

Storage	Not applicable
Disposal	Not applicable
Hazard(s) Not Otherwise Classified (HNOC)	None known.
Physical Hazards Not Otherwise Classified (PHNOC)	None known.
Unknown acute toxicity	None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

Composition Mixture.

Chemical name	CAS-No	Weight %
Iron	7439-89-6	85-100
Silicon	7440-21-3	1-11
Carbon	7440-44-0	1-11

4. FIRST-AID MEASURES

Necessary first-aid measures

General Information	For electrocution, stop powder to the equipment or remove the victim from contact with live circuits, if this can be done without risk to yourself. Get immediate medical advice/attention.
Inhalation	Remove to fresh air immediately or administer oxygen. Get medical attention immediately.
Ingestion	Rinse mouth. Get medical attention immediately.
Skin contact	Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.
Eye contact	Flush with plenty of water for at least 15 minutes. Get medical attention.
Most important symptoms (acute)	Not available.
Most important symptoms (over-exposure)	Not available.
Indication of any immediate medical attention and special treatment needed	Not available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Water spray. Alcohol resistant foam. Dry chemical. Carbon dioxide (CO ₂). Use the extinguishing media recommended for the burning material and fire situation.
Unsuitable extinguishing media	Do not use water on molten metal. Large fires may be flooded with water from a safe distance.
Specific hazards	Hazardous Thermal Decomposition Products: Iron Oxide. silicon oxides. Oxides of carbon.

Special protective equipment for fire-fighters Firefighters should wear NIOSH/MSHA approved (or equivalent) self-contained pressure-demand breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Use personal protection recommended in Section 8. For waste disposal, see section 13 of the SDS.

Methods and materials for containment and cleaning up Solid objects may be picked up and placed in a container. Make sure the solid objects are at room temperature before handling. Liquids or pastes should be scooped up and placed into a container. Wear proper protective equipment while handling these materials. Dispose contaminated material as waste according to section 13.

7. HANDLING AND STORAGE

Precautions for safe handling Handle with care to avoid cuts and prevent the wire from piercing the skin. Wear gloves. Some individuals may develop an allergic reaction to certain materials. Keep all warning and identification labels on the product.

Conditions for safe storage, including any incompatibilities Keep containers tightly closed in a cool, well-ventilated place. Keep separate from chemical substances like acids and strong bases, which could cause chemical reactions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name	OSHA PEL (TWA)	ACGIH OEL (TWA)	NIOSH - TWA
Iron	-	-	-
Silicon	15 mg/m ³ TWA 5 mg/m ³ TWA	-	10 mg/m ³ TWA 5 mg/m ³ TWA
Carbon	-	-	-

Appropriate engineering controls Avoid exposure to welding fumes, radiation, spatter, electric shock, heated materials and dust. Ensure sufficient ventilation, local exhaust, or both, to keep welding fumes and gases from breathing zone and general area. Keep workplace and protective clothing clean and dry. Train the welder not to touch live electrical parts and to insulate himself from work and ground. Check condition of protective clothing and equipment on a regular basis. Provide adequate ventilation to keep exposure limits below PEL.

Individual protection measures, such as personal protective equipment

Eye protection Welder's helmet or face shield with color absorbing lenses. Shield and filter to provide protection from harmful UV radiation, infrared and molten metal approved to standard EN379. Filter shade to be a minimum of shade 9.

Skin and body protection Wear impervious gloves to prevent contact with the skin. Heat-resistant protective clothing. Wear safety boots, apron, arm and shoulder protection. Keep protective clothing clean and dry. Clothing should be selected to suit the level, duration and purpose of the welding activity.

Respiratory protection Use an air purifying dust respirator when welding or brazing in a confined space, or when local exhaust or ventilation is not sufficient to keep exposure values within safe limits.

Hygiene measures Keep away from food, drink and animal feeding stuffs. Wash hands after handling the product. Immediately remove all soiled and contaminated clothing. Wash hands before

breaks and at the end of workday. Store protective clothing separately. Maintain an ergonomically appropriate working environment. Keep unnecessary and unprotected personnel from entering the area. Wear protective equipment.

Canadian Province Occupational Exposure Limits

Chemical name	Alberta OEL	British Columbia OEL	Manitoba OEL	New Brunswick - OEL	Newfoundland & Labrador - OEL	Nova Scotia - OEL	Ontario OEL	Prince Edward Island - OEL	Quebec OEL	Saskatchewan - OEL
Iron	-	-	-	-	-	-	-	-	-	-
Silicon	-	10 mg/m ³ TWA 3 mg/m ³ TWA	-	10 mg/m ³ TWA	-	-	-	-	10 mg/m ³ TWAEV	20 mg/m ³ STEL 10 mg/m ³ TWA
Carbon	-	-	-	-	-	-	-	-	-	-

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid
Color	Gray
Odor	Odorless
Odor threshold	Not applicable
pH	Not applicable
Melting point/range °C	850-1100 °C
Melting point/range °F	1560-2000 °F
Boiling point/range °C	Not available
Boiling point/range °F	Not available
Flash point °C / °F	Not available
Evaporation rate	Not applicable
Flammability (Solid, Gas)	Not available
Lower explosion limit	Not available
Upper explosion limit	Not available
Vapor pressure	Not applicable
Vapor density	Not applicable
Relative density	6-9
Solubility	Insoluble in water
Partition coefficient (n-octanol/water)	No data available

Autoignition temperature °C	Not applicable
Autoignition temperature °F	Not applicable
Decomposition temperature °C	Not available
Decomposition temperature °F	Not available
Viscosity	Not available

10. STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
Chemical stability	Stable under normal storage conditions.
Possibility of hazardous reactions	Contact with chemical substances like acids or strong bases could cause generation of gas.
Conditions to avoid	Not applicable.
Incompatible materials	Incompatible with acids.
Hazardous decomposition products	When this product is used in a welding process, hazardous decomposition products would include those from volatilization, reaction or oxidation of the materials listed in section 3 and those from the base metal and coating. The amount of fumes generated from this product varies with welding parameters and dimensions. Refer to applicable national exposure limits for the fume compounds. Fume limit for chromium, nickel, and or manganese may be reached before limit of 5 mg/m ³ of general welding fumes is reached. Air contaminants around the welding area can be affected by the welding process and influence the composition and quality of fumes and gases produced.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	Dermal. Inhalation. Ingestion.
Symptoms	Inhalation of welding fumes and gases can be dangerous to your health. Welding fumes cannot be classified simply. Their composition and quantity are dependent upon the metal being welded, the process, procedures and electrodes being used. The International Agency for Research on Cancer has classified welding fumes as possibly carcinogenic to humans (group 2B).
Delayed and immediate effects as well as chronic effects from short and long-term exposure	Short term overexposure to welding fumes may result in dizziness, nausea, or dryness or irritation of nose, throat, or eyes. Long term exposure may lead to iron deposits in the lungs and is believed by some investigators to affect pulmonary function.

Numerical measures of toxicity

Chemical name	Inhalation LC50:	Dermal LD50:	Oral LD50:
Iron	-	-	= 30 g/kg (Rat)
Silicon	-	-	= 3160 mg/kg (Rat)
Carbon	-	-	> 10000 mg/kg (Rat)

ATEmix (dermal)	Not available
ATEmix (oral)	Not available

ATEmix (inhalation-gas) Not available

ATEmix (inhalation-vapor) Not available

ATEmix (inhalation-dust/mist) Not available

Carcinogenicity

Chemical name	ACGIH OEL - Carcinogens	IARC	OSHA RTK Carcinogens	NTP
Iron	-	-	-	-
Silicon	-	-	-	-
Carbon	-	-	-	-

Canadian Province carcinogenicity limits

Chemical name	Alberta - Carcinogen	British Columbia - Carcinogen	Manitoba - Carcinogen	New Brunswick - Carcinogen	Nova Scotia - Carcinogen	Quebec - Carcinogen
Iron	-	-	-	-	-	-
Silicon	-	-	-	-	-	-
Carbon	-	-	-	-	-	-

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish
Iron	-	13.6: 96 h Morone saxatilis mg/L LC50 static
Silicon	-	-
Carbon	-	-

Persistence and degradability The welding rods consist of elements that cannot degrade any further in the environment.

Bioaccumulation

Chemical name	CAS-No	Partition coefficient (log Kow)
Iron 7439-89-6	7439-89-6	-
Silicon 7440-21-3	7440-21-3	-
Carbon 7440-44-0	7440-44-0	-

Mobility in soil

Welding rods are not soluble in water or soil. Particles formed by working welding rods can be transported in the air.

Other adverse effects

Welding consumables and materials can degrade into the components used to manufacture the product. Avoid exposure to conditions that could lead to accumulation in soils and

groundwater. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

13. DISPOSAL CONSIDERATIONS

Disposal information	Collect, transport, store or dispose in accordance with local, state, provincial and federal regulations. Consult appropriate federal, state and local regulatory agencies to ascertain proper disposal procedures. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste.
Contaminated packaging	Dispose in accordance with local, state and federal regulations.

14. TRANSPORTATION INFORMATION

Shipping Descriptions

DOT
Proper shipping name Not regulated

TDG
Proper shipping name Not regulated

IATA
Proper shipping name Not regulated

IMDG/IMO
Proper shipping name Not regulated

Marine Pollutants

Chemical name	CAS-No	USDOT Marine Pollutant	Canada TDG Marine Pollutant	IMDG Marine Pollutant
Iron	7439-89-6	-	-	-
Silicon	7440-21-3	-	-	-
Carbon	7440-44-0	-	-	-

Special Precautions

Multi-modal shipping descriptions are provided for informational purposes and do not consider container size. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

15. REGULATORY INFORMATION

State regulations

U.S. state Right-to-Know regulations

Chemical name	CAS-No	Massachusetts - RTK	New Jersey - RTK	Pennsylvania - RTK
Iron	7439-89-6	-	-	-
Silicon	7440-21-3	X	X	X
Carbon	7440-44-0	-	-	-

California Prop. 65

Chemical name	CAS-No	California Prop. 65
Iron	7439-89-6	-
Silicon	7440-21-3	-
Carbon	7440-44-0	-

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. Federal Regulations**US EPA SARA 313**

Chemical name	CAS-No	CERCLA/SARA Hazardous Substances RQ	SARA 313 - Threshold Values
Iron	7439-89-6	-	-
Silicon	7440-21-3	-	-
Carbon	7440-44-0	-	-

**US EPA SARA 311/312
hazardous categorization**

Not applicable

Chemical name	DSL/NDSL	Inventory - United States - Section 8(b) Inventory (TSCA)	U.S. - TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification
Iron	X	X	-
Silicon	X	X	-
Carbon	X	X	-

Legend X - Listed

16. OTHER INFORMATION**NFPA**

Health	Not available
Flammability	Not available
Instability	Not available

HMIS

Health	Not available
Flammability	Not available
Physical hazards	Not available

Notice: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA).

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Revision note

Key to abbreviations

ACGIH (American Conference of Governmental Industrial Hygienists)
ATE (Average Toxicity Estimate)
DSL/NDL (Domestic Substance List/Non-Domestic Substance List)
HMIS (Hazardous Materials Identification System)
IARC (International Agency for Research on Cancer)
IATA (International Air Transport Association)
IMDG/IMO (International Maritime Dangerous Goods/International Maritime Organization)
NFPA (National Fire Protection Association)
NTP (National Toxicology Program)
OEL (Occupational Exposure Level)
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
PEL (Permissible Exposure Limit)
TSCA (Toxic Substance Control Act)
USEPA (United States Environmental Protection Agency)

Disclaimer

The information accumulated herein is believed to be accurate, but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

End of Safety Data Sheet